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July 5, 2005

Mr. Ed Johnson, Branch Chief  
Regulatory Functions Branch  
Savannah District, North Area Office  
1590 Adamson Parkway, Suite 200  
Morrow, GA 30260  
**Attention: Mary Dills**

Subject: Practical Alternative Review (PAR) Package – US 441 Improvements  
GDOT Project EDS-441(42)(43), Morgan/Oconee Counties, P.I. #222560 & #122660

Dear Mr. Johnson:

The Department has completed environmental surveys for the subject project and found that the project will require an Individual Permit. The proposed project would widen US 441 beginning at the Madison Bypass in Morgan County, heading north to end approximately 1.3 miles north of Bishop, Georgia in Oconee County. The proposed roadway would be four 12-foot lanes with a 14-foot, 32-foot, or 44-foot median. The proposed right-of-way would be approximately 250 feet. The total project length is approximately 17.0 miles.

Enclosed for your review is a copy of the PAR report, Ecology Report dated June 30, 2005, and aerial photography. This project will be discussed at the July 6, 2005 Interagency Quarterly Meeting. If after the project review at the meeting and after the 30-day review per the Local Coordination Procedures, if it is determined a field review is necessary, one will be scheduled. If you have any questions or require any additional information, please contact Lisa Westberry at (404) 699-4433 or Susan Knudson at (404) 699-4407 of this office.

Sincerely,

A handwritten signature in black ink that reads "Harvey D. Keepler" followed by a stylized monogram "SBK".

Harvey D. Keepler  
State Environmental/Location Engineer

HDK/SBK/lmw  
Enclosures

cc: Pete Pattavina, USFWS (with enclosures); Bob Lord, EPA (with enclosures); Keith Parsons, GDNR-EPD (with enclosures); Michele Lindberg, FHWA (with enclosures)

DEPARTMENT OF TRANSPORTATION  
STATE OF GEORGIA  
OFFICE OF ENVIRONMENT/LOCATION

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# PRACTICAL ALTERNATIVES REPORT

## US 441/SR 24 IMPROVEMENTS EDS-441(42)(43) PI # 222560, 122660 MORGAN & OCONEE COUNTIES July 6, 2005

Attached is a copy of the Practical Alternatives Report for your review and comment.

### **General Project Description:**

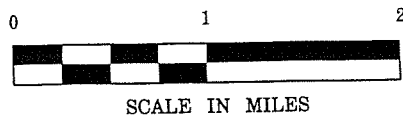
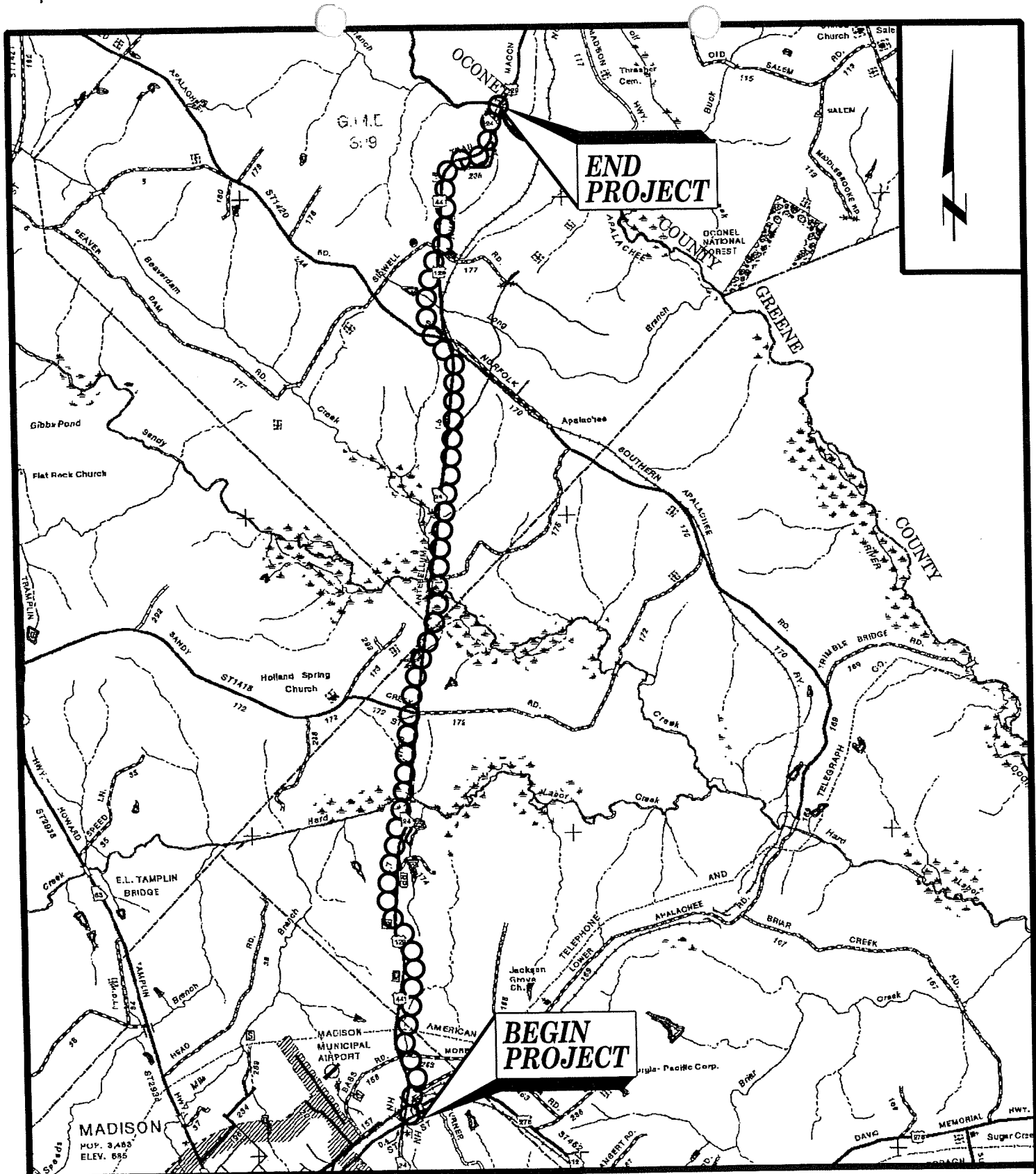
This report consists of EDS-441(42)(43), located in Morgan & Oconee counties. These projects propose improving US 441/SR 24 by widening the existing roadway from 2 or 3 lanes to 4 lanes with either a 44-foot grassed median or a 32-foot grassed median. The improvements begin north of the city of Madison in Morgan County and would continue primarily northward into Oconee County to east of the city of Butler. The total project length is approximately 16.6 miles. The proposed right-of-way varies from 238 to 250 feet in width. The existing pavement will be used wherever feasible.

### **Need and Purpose:**

The US 441/SR 24 Improvements are part of the Governor's Road Improvement Program (G.R.I.P). The proposed projects involve the multi-laning of this primary north-south corridor in northeast Georgia, serving as a catalyst for the development of this region. The improvements will aid in the economic development of sparsely populated rural areas and small towns along this route. Traffic carrying capacity will be increased; safety and operational characteristics along this segment will be improved.

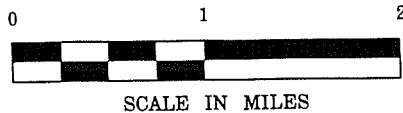
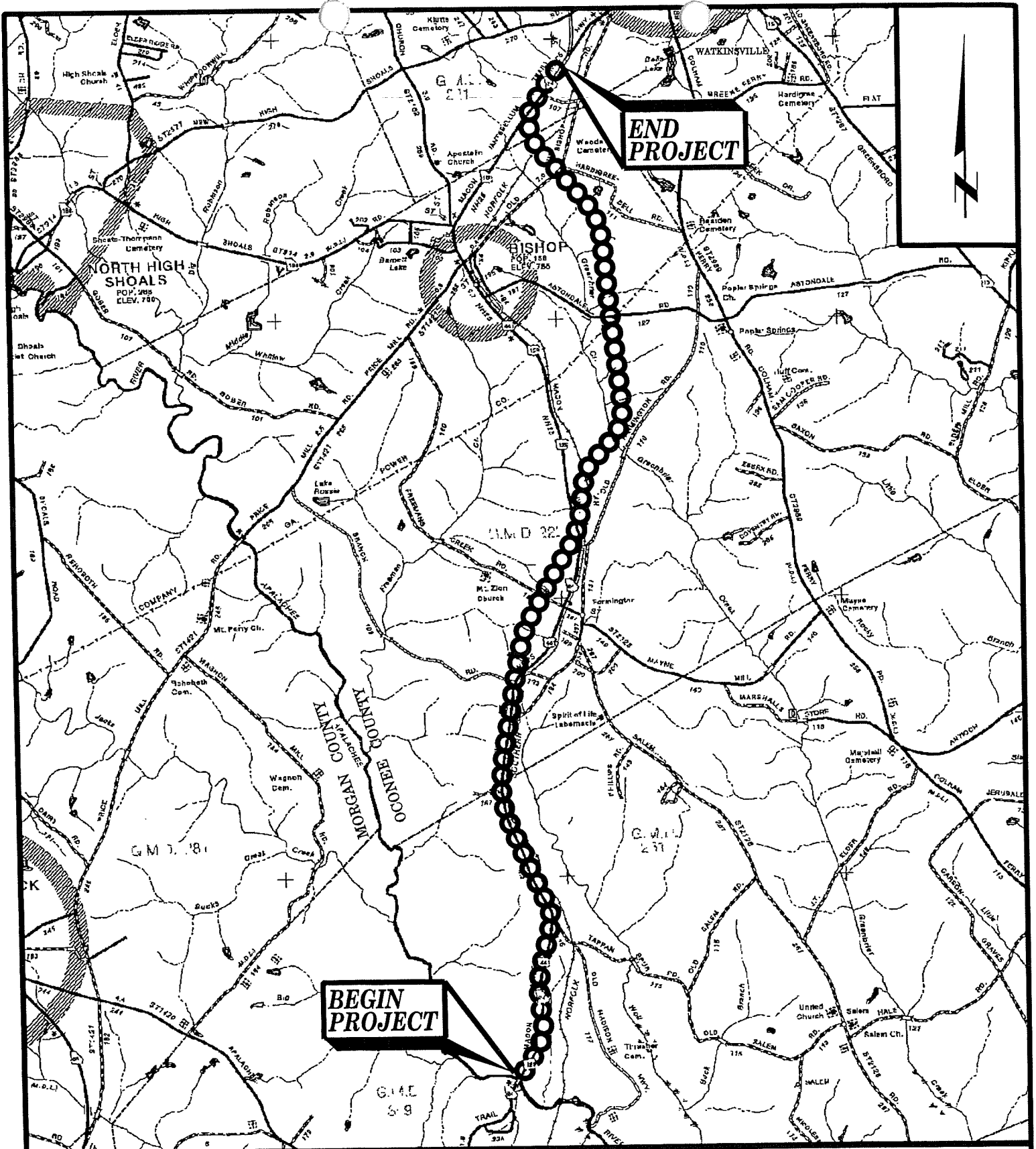
### **Distribution:**

Georgia Environmental Protection Division  
US Federal Highway Administration  
US Army Corps of Engineers  
US Fish & Wildlife Service  
National Marine Fisheries  
US Environmental Protection Agency



**STRIPMAP**  
 EDS-441(42)  
 S.R. 24/U.S. 441 IMPROVEMENTS  
 MORGAN COUNTY  
 P.I.# 222560

SOURCE: GENERAL HIGHWAY MAP, MORGAN CO., GEORGIA  
 PREPARED BY THE GEORGIA DEPARTMENT OF TRANSPORTATION, 1992



LOCATION

**STRIPMAP**  
 EDS-441(43)  
 S.R. 24/U.S. 441 IMPROVEMENTS  
 OCONEE COUNTY  
 P.I.# 122660

SOURCE: GENERAL HIGHWAY MAP, MORGAN CO., GEORGIA  
 PREPARED BY THE GEORGIA DEPARTMENT OF TRANSPORTATION, 1992

### EXISTING ROADWAY DESCRIPTION

Current Posted Speed	Existing Typical Section	Existing R/W Width
Varies – 35, 45, & 55 MPH	2-12 ft lanes with open ditch drainage 3-12 ft lanes with open ditch drainage	Varies – 80 ft to 250 ft

### PROPOSED ROADWAY DESCRIPTION

Proposed Design Speed	Proposed Typical Section	Proposed R/W Width
65 MPH	4-12 ft lanes w/32 ft grassed median - rural 4-12 ft lanes w/44 ft grassed median - rural	Approx. 232 ft Varies - 208 ft to 271 ft

### EXISTING ROADWAY STRUCTURES TO BE AFFECTED

Structure	ID #	Existing			Proposed†		W/L ID
		Length	Deck Width	Sufficiency Rating	Length	Deck Width	
CSX-Norfolk/Southern RR Bridge (widen existing)	211-0004-0	253'	71.2'	94.23	253'	85.5'	N/A
Hard Labor Creek Bridge (reconstruct existing & construct new parallel bridge)	211-0005-0	300'	34.7'	35.53	300'	41.5'	W/L 02
Big Sandy Creek Bridge (reconstruct existing & construct new parallel bridge)	211-0006-0	314'	34.7'	41.45	314'	41.5'	W/L 07
Apalachee River Bridge (reconstruct existing & construct new parallel bridge)	211-0007-0	371'	34.7'	38.86	371'	41.5'	W/L 16

NOTE: Existing culverts and pipes are to be widened and/or lengthened as necessary

† Proposed structure dimensions are preliminary estimates and subject to change

## **ALTERNATIVES CONSIDERED PROPOSED “BEST FIT” ALTERNATIVE DESCRIPTION**

The project, EDS-441(42)(43) would begin approximately 330 feet north of the intersection of US 441/SR 24 and US 278/SR 12, in Morgan County. At this point the project would proceed north on the existing typical section, which is four 12-foot lanes with a 14-foot flush median. The project would grade separate the Norfolk-southern Railroad at the existing US 441/SR 12 bridge location, widening the bridge to meet current design standards to accommodate the 14-foot flush median typical section. Immediately north of the bridge, the project would then transition to a typical section consisting of four 12-foot lanes with a 44-foot grassed median and proceed north as widening on the east side of the existing right-of-way to avoid impacts to four eligible historic resources just south of CR 263/Bass Road. Continuing north, the project would widen to the east side of existing US 441/SR 24 holding the existing lanes to a point approximately 2800 ft south of CR 174/VFW Lane, where the project transitions to west side widening holding existing pavement. Approximately 500 ft north of CR 174/VFW Lane, the project would transition to the west side widening holding right-of-way and continue north to a point approximately 500 ft south of Hard Labor Creek. The project would then transition to east side widening holding right-of-way to avoid a longitudinal stream impact minimize wetland impacts at Hard Labor Creek and to also minimize wetland and stream impacts at Big Sandy Creek. The existing bridge at Hard Labor Creek would be replaced due to an unacceptable sufficiency rating and a parallel structure constructed. Stream 01 & Wetland 02 would be impacted.

The project would continue northward past CR 172/Sandy Creek Road to a point approximately 2100 feet south of Big Sandy Creek, where the typical section would transition to a 32-foot grassed median to reduce impacts to Wetland 07 & Stream 08. Just south of the transition, Stream 06 would be impacted. The existing bridge at Big Sandy Creek would be replaced due to an unacceptable sufficiency rating and a parallel structure constructed. Streams 08, 09, & 10, & Wetland 07 would be impacted. Widening to the east side would continue northward to the south Apalachee city limits, where the road would transition to both a 44-foot median and also to west side widening holding right-of-way to avoid impacts to the eligible historic resources. Approximately 1600 ft south of CR 244/Appalachee Road the project would proceed onto new location to avoid additional eligible historic resources, crossing relocated CR 244/Appalachee Road approximately 400 ft west of the existing intersection with US 441/SR 24. The project would proceed north on new location and impact Stream 13 just north of the north Apalachee city limits and then transition to east side widening holding right-of-way at CR177/Sidwell Road to minimize displacements. East side widening holding right-of-way would continue north to a point 2200 ft south of the Apalachee River, where the project would transition to east side widening holding pavement to avoid impacts to a nearby tributary of the Apalachee River. The existing bridge at the Apalachee River would be replaced due to an unacceptable sufficiency rating and a parallel structure constructed. Streams 14 & 15 would be impacted and EDS-441(42) would end just north of the Apalachee River, also the Morgan County/Oconee County line.

EDS-441(43) would begin just north of the Morgan County/Oconee County line where EDS-441(42) ends at the Apalachee River and would continue north with east side widening holding right-of-way. Wetland 16 would be impacted just north of the Apalachee River. At appoint

1300 ft north of the Apalachee River, the project would transition to west side widening holding right-of-way to avoid impacting a roadside cemetery and eligible historic resource just south of CR 116/Tappan Spur Road. Just north of CR 116/Tappan Spur Road the project would transition to east side widening holding right-of-way to minimize displacements and then immediately transition back to west side widening holding right-of-way to avoid impacts to an eligible historic railroad approximately 1300 ft south of CR 167/Leachmon Road. Widening to the west while holding existing east side right-of-way would continue north of CR 167/Leachmon Road to CR 134/Old Farmington Road, where the relocation of the CR 134/Old Farmington road would impact Pond 18. West side widening holding existing east side right-of-way would continue north to CR 109/Branch Road and then continue north onto new location west of existing US 441/SR 24 to avoid impacts to the Farmington Historic District. This proposed alignment would intersect CR169/Freeman Creek Road approximately 1300 ft west of the existing US441/SR 24 intersection with CR 169 and would impact Streams 20, 20B, & 20F; Wetlands 19 & 20E; and Ponds 20A, 20C, & 20D, while avoiding a local cemetery plot and realigning CR169 to avoid impacts to several eligible historic resources.

The project would continue north on new location and impact Wetland 22 as it would cross existing US 441/SR 24 and grade separate the historic railroad. Existing US 441/SR 24 from Bishop would tie into the project between the proposed project crossing with the existing roadway and the grade separation of the railroad. The project would then proceed north on new location as an east side bypass of Bishop in order to avoid impacts to the Bishop Historic District. The project alignment would avoid three potentially eligible archeological sites and one eligible historic resource. Streams 23, 24, 25, 26, Wetland 27, & Pond 28 would be impacted. The project would then intersect CR 127/Astondale Road, continue northwest, and would impact Streams 29, 30, 32, 34, 35, Wetlands 31, & 33. The project would then intersect CR 265/Old Bishop Road and would avoid impacts to a cemetery along CR 265 to the northeast and an eligible historic resource along CR 265 to the southwest. The project would continue northeast and grade separate the Norfolk-Southern Railroad northeast of Bishop. Wetlands 36, 37, 38, & Stream 39 would be impacted. The project would then continue north and tie into the existing US 441/SR 24 4-lane typical section between Bishop and Watkinsville. Existing US 441/SR 24 out of Bishop would tie in to the project via T-intersection. Wetlands 40, 42, and Stream 41 would be impacted.

## ECOLOGICAL IMPACTS

Site Number		Wetland Area (acres)	Pond Area (acres)	Stream Length (linear feet)
Stream	1			215-Bridged*
W/L	2	2.27		
Stream	3			200
Stream	6			302
W/L	7	13.26		
Stream	8			330-Bridged*
Stream	9			60
Stream	10			2900
Stream	13			340

Stream	14			630
Stream	15			215-Bridged*
W/L	16	0.04		
Pond	18		0.25	
W/L	19	0.15		
Stream	20			112
Pond	20a		0.49	
Stream	20b			180
Pond	20c		0.34	
Pond	20d		0.67	
W/L	20e	0.39		
Stream	20f			515
W/L	22	0.11		
Stream	23			260
Stream	24			250
Stream	25			260
W/L	26	0.16		
Stream	27			130
Pond	28		0.19	
Stream	29			265
Stream	30			250
W/L	31	1.08		
Stream	32			360
W/L	33	1.60		
Stream	34			270
Stream	35			280
W/L	36	0.38		
W/L	37	0.44		
W/L	38	0.44		
Stream	39			130
W/L	40	0.51		
Stream	41			175
W/L	42	0.79		

<b>TOTAL:</b>	<b>Wetland Area</b>	<b>Pond Area</b>	<b>Streams</b>
	<b>21.62 acres</b>	<b>1.94 acres</b>	<b>7,869 feet*</b>

\*NOTE: Stream total does not include bridged stream impacts.

\* NOTE: The Office of Environment/Location, in its representations of preliminary concepts, strives to show as nearly as possible the route and right-of-way requirements of projects. Because of the preliminary nature of these location studies, certain information cannot be finalized until completion of the design stage of GDOT's project development process. In areas where existing facilities are to be improved and are in need of vertical and/or horizontal realignment, the Department tries to present a "worst case" of impacts, in anticipation of a reduction of these impacts and right-of-way requirements at the detailed design stage.



### ALTERNATIVE SUMMARY TABLE

<b>Length</b>		37.2 miles
<b>Typical Section &amp; Design Speed</b>		4 lanes, 44-ft & 32-ft grassed median (65 mph)
<b>Displacements</b>		
	Residential	23 (approx.)
	Businesses	1 (approx.)
<b>Streams</b>		
	# of Impacts	20
	Total Length Impacted	7,869 feet*
<b>Wetlands</b>		
	# of Impacts	14
	Total Area Impacted	21.62 acres
<b>Ponds</b>		
	# of Impacts	5
	Total Area Impacted	1.94 acres

\*NOTE: Stream total does not include bridged stream impacts.

### ALTERNATIVES CONSIDERED “WETLAND MINIMIZATION” ALTERNATIVE DESCRIPTION

The “Wetland Minimization” alternative is the Proposed “Best Fit” alternative as described above.

**RECOMMENDATIONS:** The Currently Proposed “Best Fit” Alternative is recommended because it provides for a safe, efficient roadway while avoiding impacts to historic, archeological, and cemetery sites while minimizing impacts to residences, businesses and the environment.

**ATTACHMENTS:** Typical Sections

**PREPARED BY:** Keith Posey - Location Engineer 3

\* NOTE: The Office of Environment/Location, in its representations of preliminary concepts, strives to show as nearly as possible the route and right-of-way requirements of projects. Because of the preliminary nature of these location studies, certain information cannot be finalized until completion of the design stage of GDOT’s project development process. In areas where existing facilities are to be improved and are in need of vertical and/or horizontal realignment, the Department tries to present a “worst case” of impacts, in anticipation of a reduction of these impacts and right-of-way requirements at the detailed design stage.

PROPOSED R/W VARIES: 208' - 271'

EXISTING R/W - 80'

10'-0" 24'-0" 22'-0" 10'-0" 2'-0" 6'-0" 2'-0" 10'-0" 24'-0" 10'-0" 18'-0" 2'-0"

6:1

Profile Grade

EXISTING ROADWAY

OR

EXISTING R/W - 80'

EXISTING ROADWAY

Guardrail Required when sleeper than 6:1

**.. Guardrail Required when sleeper than 6:1**

US 441/SR 24 IMPROVEMENTS  
EDS-441(42)(43) MORGAN/OCONEE CO.

WIDENING HOLDING R/W OR EXISTING PAVEMENT  
FROM PROJECT BEGINNING TO 2,100 FT SOUTH OF BIG SANDY CREEK  
FROM APACHEE SOUTH CITY LIMITS TO CR 109 BRANCH RD.

NOT TO SCALE

PROPOSED R/W - 238'

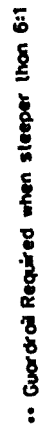
Diagram showing a cross-section of a proposed roadway with dimensions and labels:

- Overall width: 238'
- Left side dimensions (from centerline): 10'-0", 6'-6", 24'-0", 16'-0", 10'-0", 2'-0", 6'-0", 6'-0", 2'-0", 10'-0", 18'-0", 2'-0".
- Right side dimensions (from centerline): 10'-0", 6'-6", 24'-0", 16'-0", 10'-0", 2'-0", 6'-0", 6'-0", 2'-0", 10'-0", 18'-0", 2'-0".
- Labels: "Profile Grade", "6:1", "NORMAL", "EXISTING R/W VARIES: 80' - 200'", "EXISTING ROADWAY".
- Note: "Guardrail Required when sleeper than 6:1"

EAST SIDE WIDENING HOLDING WEST SIDE R/W  
FROM 2,100 FT SOUTH OF BIG SANDY CREEK  
TO APALACHEE SOUTH CITY LIMITS

NOT TO SCALE

**PROPOSED 250' R/W**



NEW LOCATION

FROM CR 109 /BRANCH ROAD  
TO PROJECT END

NOT TO SCALE